

REMARKS

Upon entry of the claim amendments, Claims 1-16 will be all the claims pending in the application.

Amended Claim 1 is supported by the description at page 16, lines 1-4, of the specification.

Applicants note with appreciation the Examiner's indication at page 3 of the Office Action that Claims 3, 4, 6, and 8 contain allowable subject matter. New Claims 10-13 are original Claims 3, 4, 6, and 8 rewritten as independent claims.

New Claims 14-15 are supported by the description at page 16, lines 1-13, of the specification. New Claim 16 is supported by, for example, page 11, lines 22-34, of the specification.

No new matter has been added.

The Office Action contains a single rejection. Specifically, Claims 1-2, 5, 7, and 9 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Application Publication No. 2003/0229183 ("Voorheis") in view of U.S. Patent No. 4,955,613 ("Gendreau") and U.S. Patent No. 6,348,016 ("Nakamura").

Applicants respectfully traverse the rejection.

A feature of the claimed multi-piece solid golf ball is that **the solid core** is formed from a rubber composition composed of claimed components (A), (B), (C), (D), and (E) and having the particularly claimed deflection, **the mantle of at least one layer** is made of a thermoplastic resin composition, has the specifically claimed thickness, and includes an outermost layer which is in contact with the cover and has the specifically claimed Shore D hardness, **the cover** is made primarily of a mixture of claimed components (F) and (G), has the specifically claimed thickness and Shore D hardness, and satisfies the claimed condition (Shore D hardness of mantle outermost layer) \leq (Shore D hardness of cover); and **the golf ball** has the particularly claimed

deflection, thereby to have excellent flight characteristics, scuff resistance, and a soft feel on impact.

Voorheis discloses in column 4, paragraph [0032], that the sulfur-based curing agents are described in U.S. Patent Application Serial No. 09/894,960 (“the ‘960 Application”) in detail. U.S. Patent No. 6,695,718 (“the ‘718 Patent”), which corresponds to the ‘960 Application, discloses in column 9, lines 1-6, that the examples of preferred sulfur curing agents include N-oxydiethylene, 2-benzothiazole sulfenamide, N,N-diorthotolyguanidine, bismuth dimethyldithiocarbamate, N-cyclohexyl 2-benzothiazole sulfenamide, N,N-diphenylguanidine, or combinations thereof.

However, the above-described compounds from the ‘718 Patent are different from the organic sulfur compound of the present invention, which consists of at least one compound selected from the group consisting of thiophenol, thionaphthol, halogenated thiophenol, and metal salts thereof, in view of chemical structures and characteristics. Thus, the primary reference, Voorheis, fails to disclose the claimed organic sulfur compound.

Gendreau discloses a golf ball product comprising about 15 to 85 parts by weight per 100 parts of rubber of a Group VIII-catalyzed polybutadiene having a Mooney viscosity of no greater than about 50 and about 85 to about 15 phr of a lanthanide-catalyzed polybutadiene having a Mooney viscosity of no greater than about 50.

However, Gendreau fails to disclose or suggest adding an organic sulfur compound to the polybutadiene; it especially fails to disclose adding an organic sulfur compound of at least one compound selected from the group consisting of thiophenol, thionaphthol, halogenated thiophenol, and metal salts thereof.

Thus, Gendreau teaches away from this feature of the claimed invention.

Nakamura also fails to disclose or suggest adding the claimed organic sulfur compound.

Regarding Claim 2, the cited references fail to disclose or suggest the subsequent reaction with a terminal modifier.

AMENDMENT

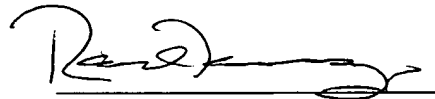
U.S. Appln. No. 10/720,522

For the foregoing reasons, Applicants respectfully request that the Examiner reconsider and withdraw the §103 rejection of Claims 1-2, 5, 7, and 9.

Reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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